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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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7590

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Arent Fox Kintner Plotkin & Kahn PLLC
Suite 600
1050 Connecticut Avenue, N.W.
Washington, DC 20036-5339

EXAMINER

KAM, CHIH MIN

ART UNIT

PAPER NUMBER

1653

DATE MAILED: 09/19/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/760,379

Applicant(s)

RAUTH ET AL.

Examiner

Chih-Min Kam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-8 and 11 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 9, 10 and 13-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 11.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____.

DETAILED ACTION

1. The finality of the previous Office Action (Paper No. 9) is withdrawn because a new ground of rejection has been applied in this Office action.

Status of the Claims

2. Claims 1-11 and 13-15 are pending.

Applicants' amendment filed on August 28, 2002 (Paper No. 10) has been entered, and applicants' response has been fully considered. Claims 1 and 13 have been amended.

Rejection Withdrawn

Claim Rejections - 35 USC § 112

3. The previous rejection of claims 6-9 and 13 under 35 U.S.C.112, second paragraph, regarding insufficient antecedent basis for the terms "hydrophilic groups" and "hydrophilic groups", and the term "the pertinacious material and the solid phase are separated by magnetic beads", is withdrawn in view of applicants' amendment to the claim, and applicants' response at page 4 in Paper No. 10.

Claim Rejections - 35 USC § 102

4. The previous rejection of claims 1-3, 6, 11 and 14 under 35 U.S.C. 102(b) as being anticipated by Belew *et al.* (J. Chromatography A, 679, 67-83 (1994)) or , is withdrawn in view of applicants' amendment to the claim, and applicants' response at page 5 in Paper No. 10.
5. The previous rejection of claims 1-3, 6 and 11 under 35 U.S.C. 102(e) as being anticipated by Smeds (U. S. Patent 6,005,082), is withdrawn in view of applicants' amendment to the claim, and applicants' response at pages 5-6 in Paper No. 10.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 6, 8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato *et al.* (J. Chromatography 333, 93-106 (1985)).

Kato *et al.* teach a resin-based carrier under the trade name TSK gel phenyl 5-PW RP is used for the reversed phase chromatography of purifying proteins. The basic matrix is the TSK gel G 5000 PW into which phenyl groups have been introduced by means of ether bond (Fig. 1), and the surface is covered with numerous hydrophobic phenolic groups along with minor number of hydroxyl group (page 93; claims 1, 6 and 8). The matrix has particle size of 10 μm (page 93; claims 2 and 3), and various proteins have been purified using the TSK gel phenyl 5-PW RP eluted with linear gradient of acetonitrile/water containing 0.05% TFA (Table II, Fig. 5, page 98; claim 11).

7. Claims 1-3, 6-8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Pearson *et al.* (High-Performance Liquid Chromatography of Proteins and Peptides, page 81-93 (1983)).

Pearson *et al.* teach various large-pore-diameter silicas have been coated with n-alkylchlorosilanes and tested for efficacy in protein separation. Various silicas having vicinal silanol (Si-OH) on the surface (page 87, left column; claim 8) and particle size (5-10 μm , Tables 1 and 3; claims 2 and 3) were coated with octyltrichlorosilane (SiCl_3C_8 ; claims 6 and 7), the

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silicas which have carbon content less than 5% (Tables 4 and 5) were used for separation of bovine serum albumin (BSA) and ovalbumin (Fig. 5; claims 1 and 11).

8. Claims 4, 5, 9, 10 and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. No claims are allowed. Claims 1-3, 6-8 and 11 are rejected, and claims 4, 5, 9, 10 and 13-15 are objected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (703) 308-9437. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on (703) 308-2923. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-0294 for regular communications and (703) 308-4227 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Chih-Min Kam, Ph. D. *CMK*
Patent Examiner

Karen Cochrane Carlson PhD
KAREN COCHRANE CARLSON, PH.D
PRIMARY EXAMINER

June 22, 2002